TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 210G E01 CE520042
Component
Hydraulic System
Fluid
CHEVRON RANDO HD46/TRC UTF RED PLUS 10W (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

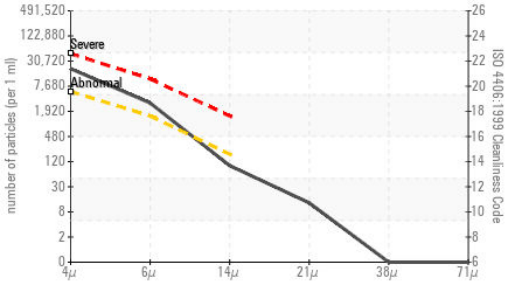
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

FLUID CONDITION

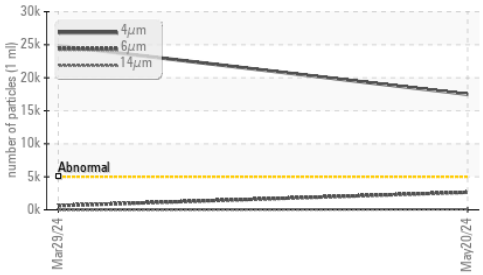
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06195891	TR06145859	---
Sample Date		Client Info		20 May 2024	29 Mar 2024	---
Machine Age	hrs	Client Info		18506	18279	---
Oil Age	hrs	Client Info		314	87	---
Filter Age	hrs	Client Info		89	301	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				ABNORMAL	ABNORMAL	---
Iron	ppm	ASTM D5185m	>20	4	4	---
Chromium	ppm	ASTM D5185m	>10	4	3	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	<1	0	---
Lead	ppm	ASTM D5185m	>10	0	0	---
Copper	ppm	ASTM D5185m	>75	2	<1	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>20	6	4	---
Potassium	ppm	ASTM D5185m	>20	<1	0	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	▲ 17485	▲ 24839	---
Particles >6µm		ASTM D7647	>1300	▲ 2657	627	---
Particles >14µm		ASTM D7647	>160	85	5	---
Particles >21µm		ASTM D7647	>40	11	1	---
Particles >38µm		ASTM D7647	>10	0	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/19/14	▲ 22/16/10	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---
Sodium	ppm	ASTM D5185m		1	<1	---
Boron	ppm	ASTM D5185m		11	3	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		<1	0	---
Manganese	ppm	ASTM D5185m		0	0	---
Magnesium	ppm	ASTM D5185m		7	8	---
Calcium	ppm	ASTM D5185m		454	192	---
Phosphorus	ppm	ASTM D5185m		441	370	---
Zinc	ppm	ASTM D5185m		562	439	---
Sulfur	ppm	ASTM D5185m		1634	1286	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.39	0.41	---
Visc @ 40°C	cSt	ASTM D445		45.4	45.1	---
Visc @ 100°C	cSt	ASTM D445		7.2	7.2	---
Viscosity Index (VI)	Scale	ASTM D2270		119	120	---

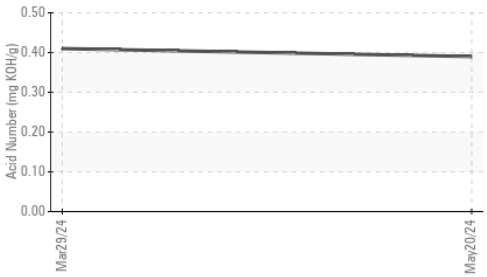
Particle Count



Particle Trend

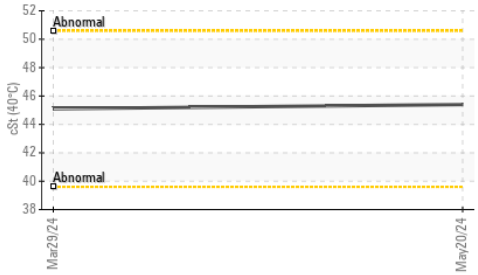


Acid Number

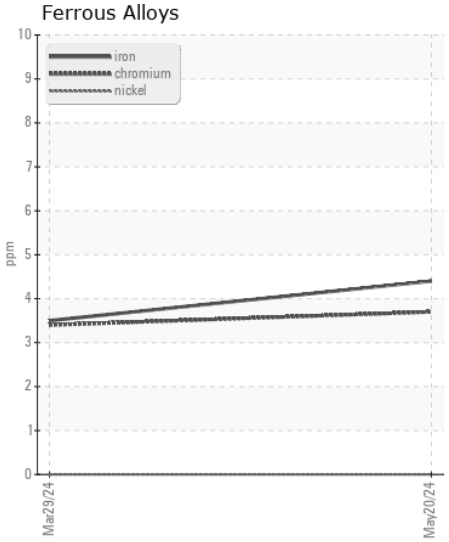


Viscosity @ 100°C

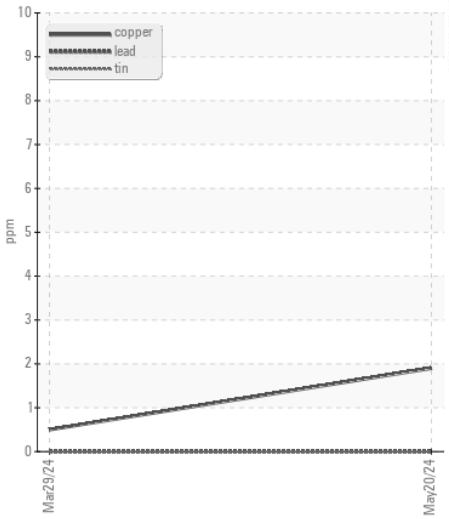
Viscosity @ 40°C



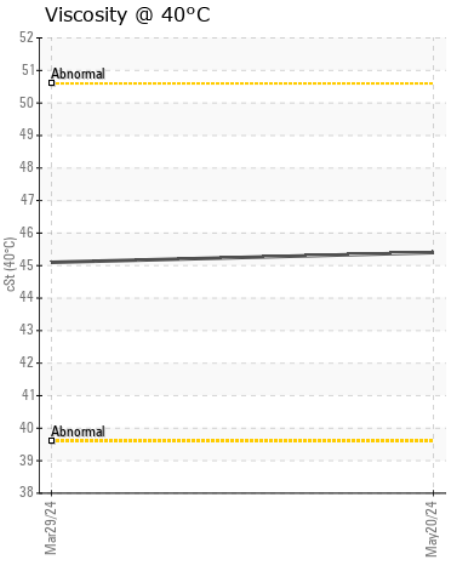
Ferrous Alloys



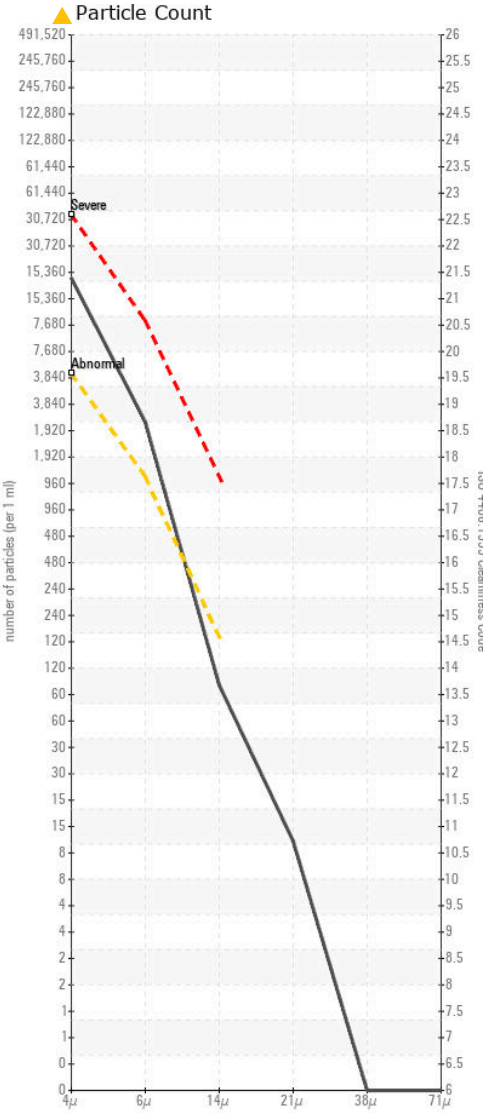
Non-ferrous Metals



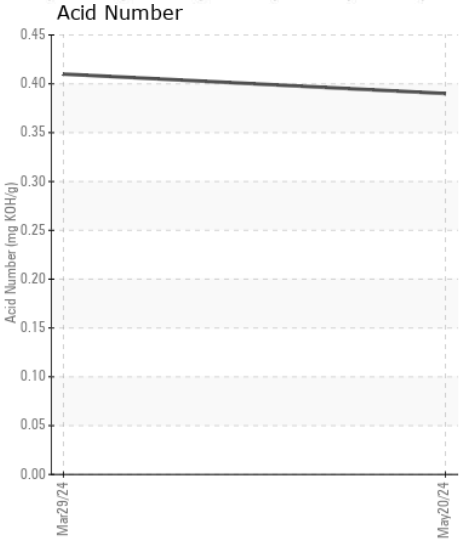
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06195891
Lab Number : 06195891
Unique Number : 11058014
Test Package : MOB 2 (Additional Tests: KV100, VI)

Received : 30 May 2024
Tested : 02 Jun 2024
Diagnosed : 02 Jun 2024 - Wes Davis

Certificate L2367

To discuss this sample report, contact Customer Service at 1-800-827-0711.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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